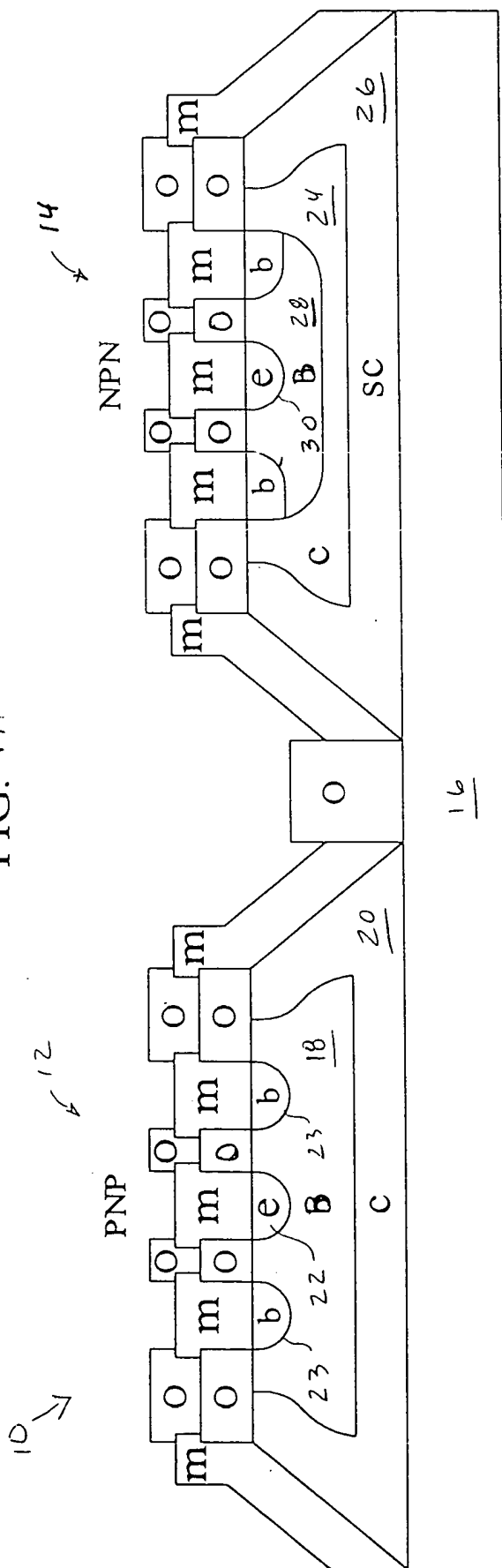


FIG. 1A



KEY: m = metal o = oxide
e = emitter

FIG. 1B

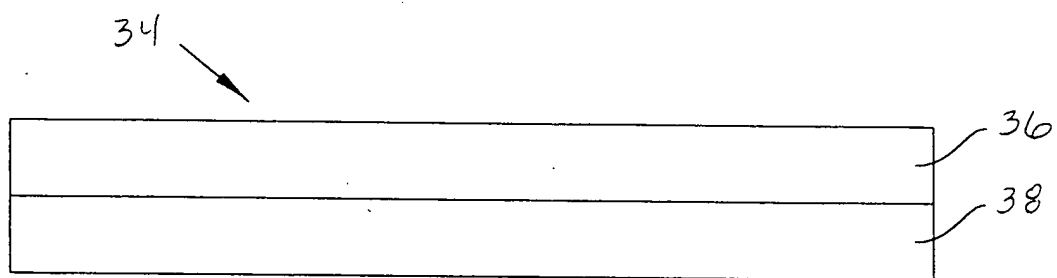


FIG. 2

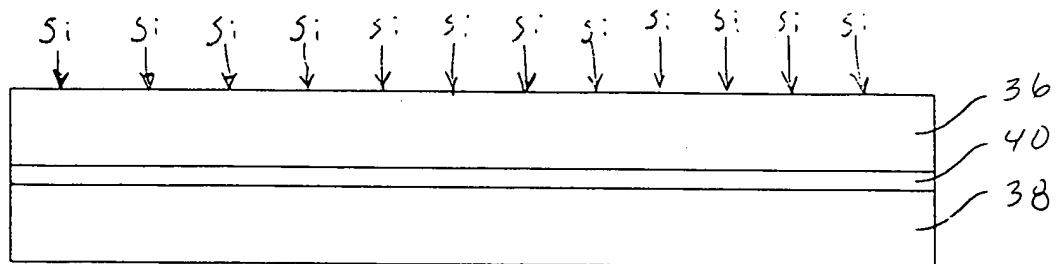


FIG. 3

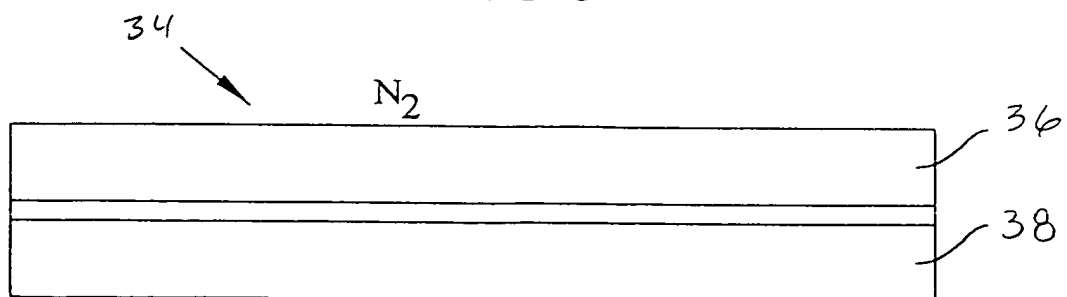


FIG. 4

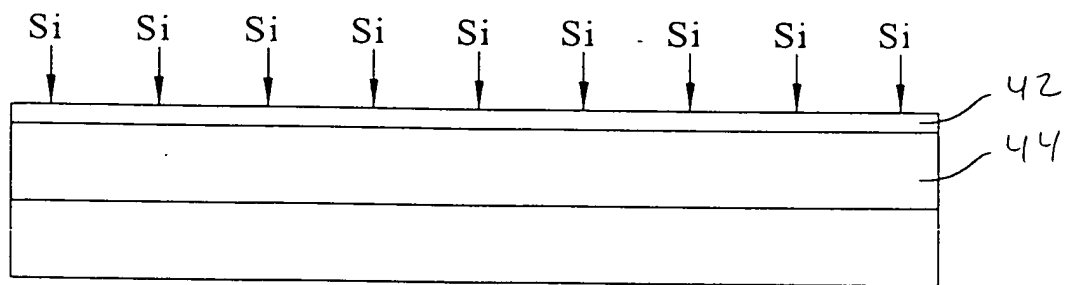


FIG. 5

N₂ ANNEAL

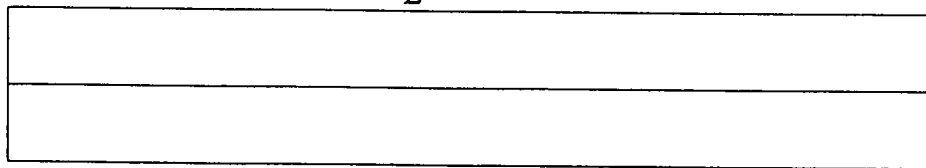


FIG. 6

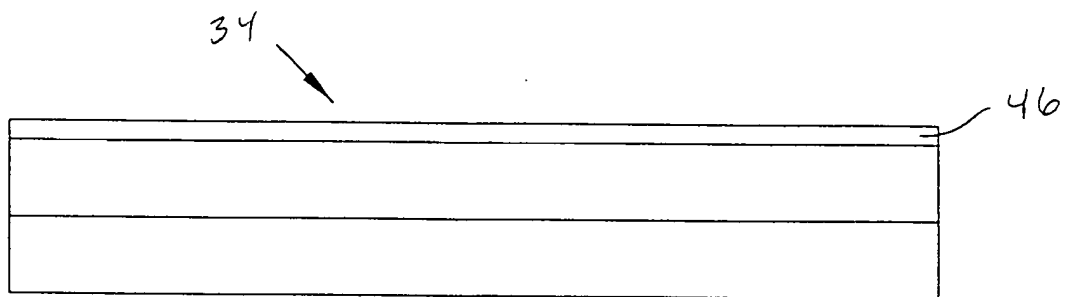


FIG. 7

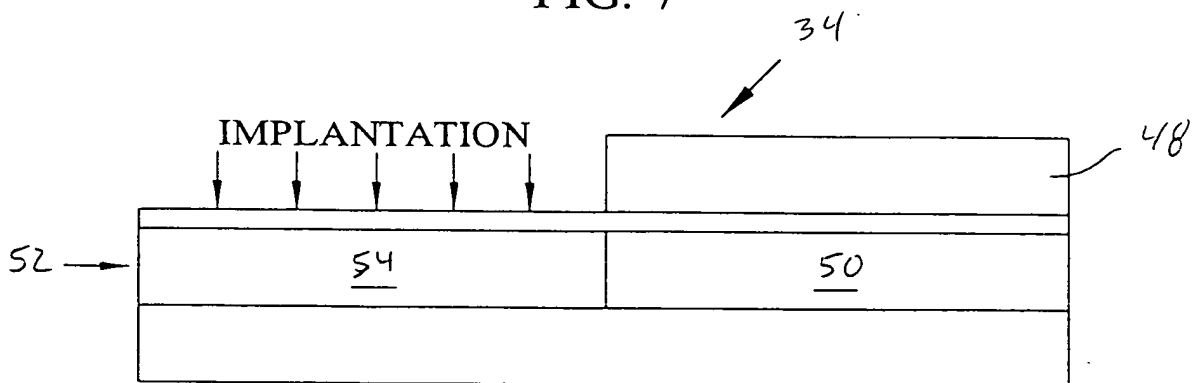


FIG. 8

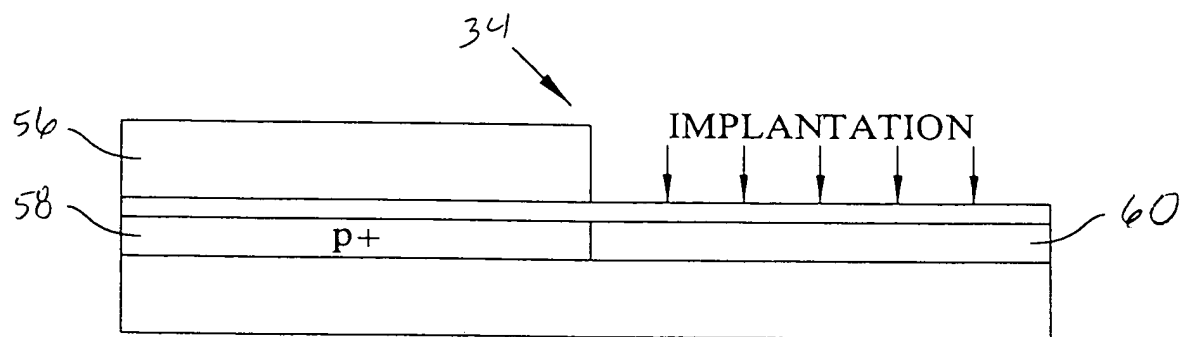


FIG. 9

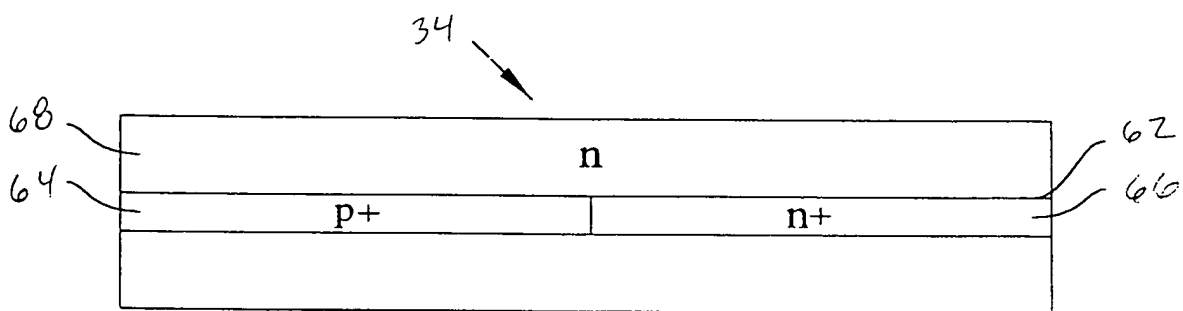


FIG. 10

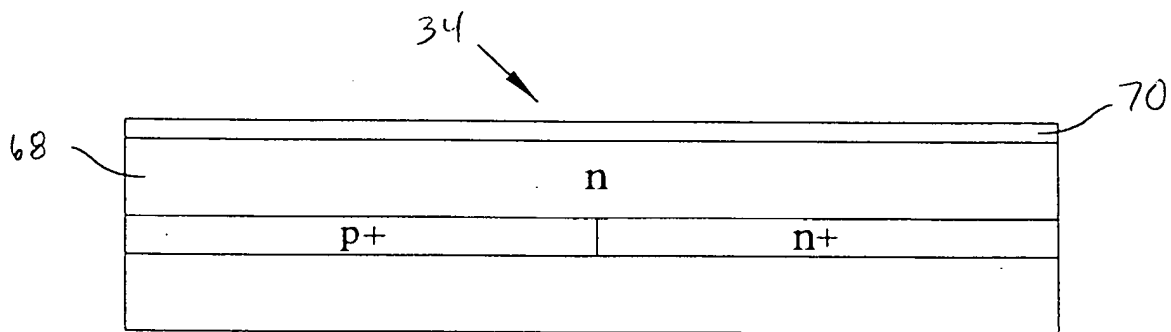


FIG. 11

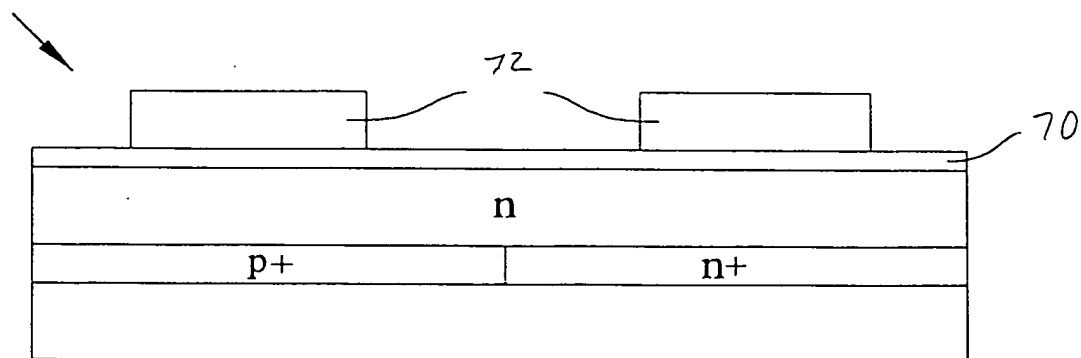


FIG. 12

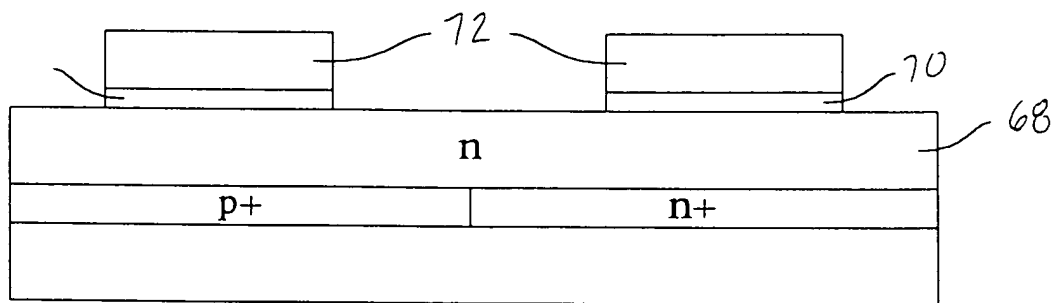


FIG. 13

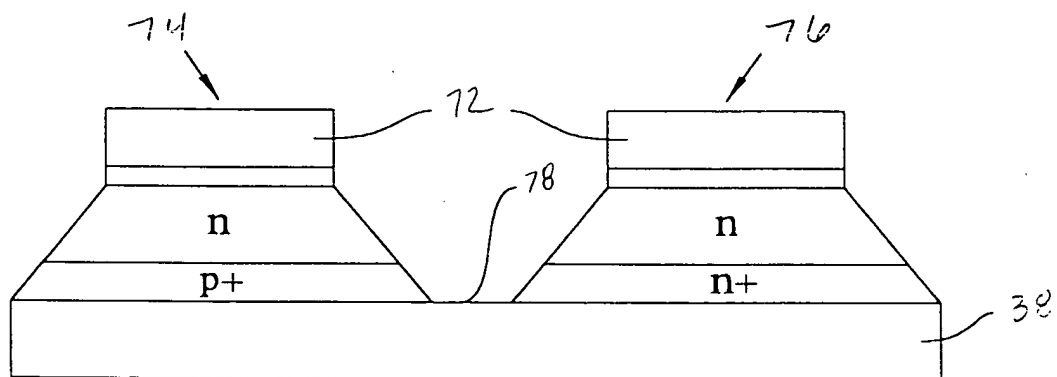


FIG. 14

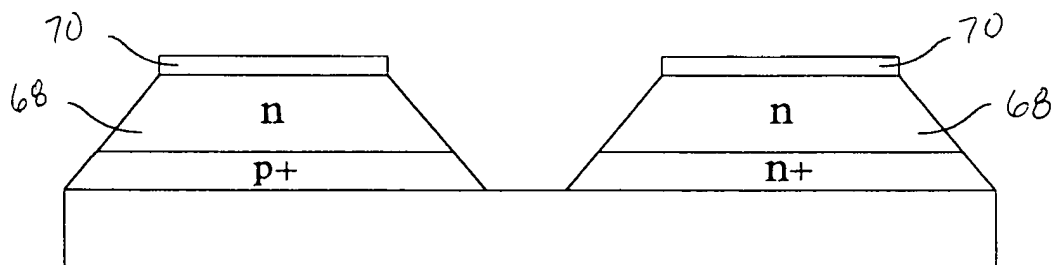


FIG. 15

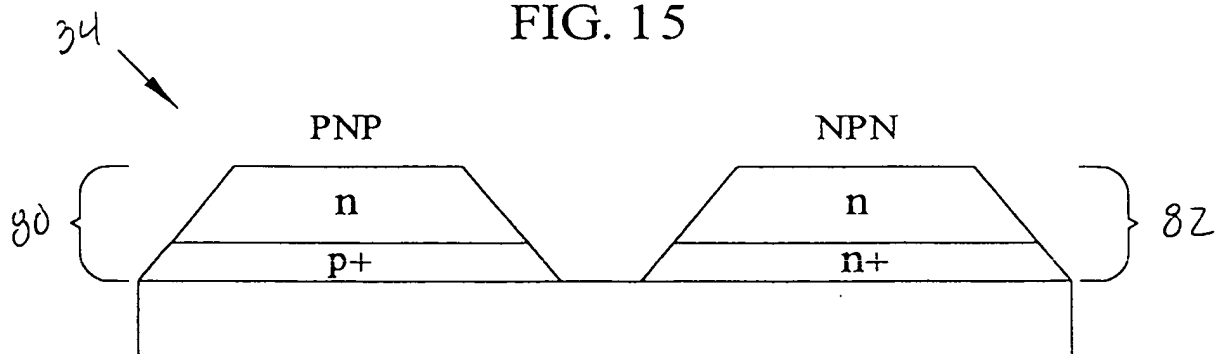


FIG. 16

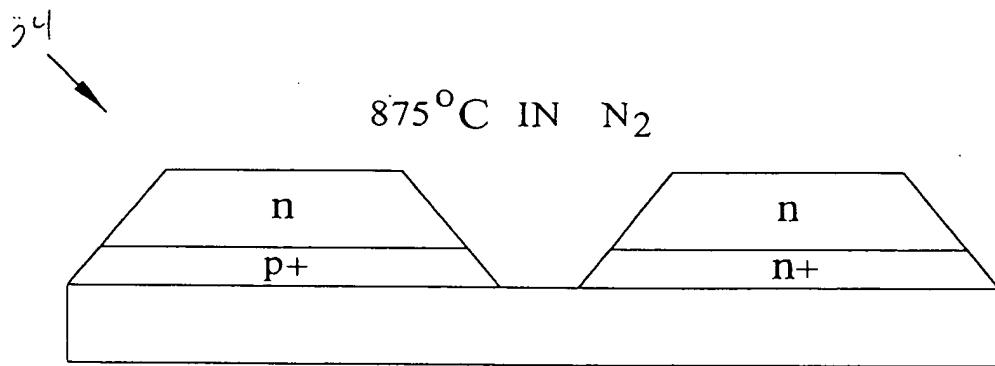


FIG. 17

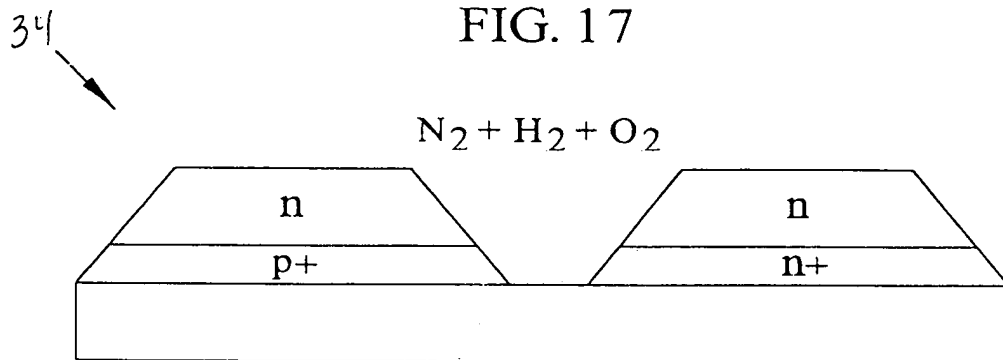


FIG. 18

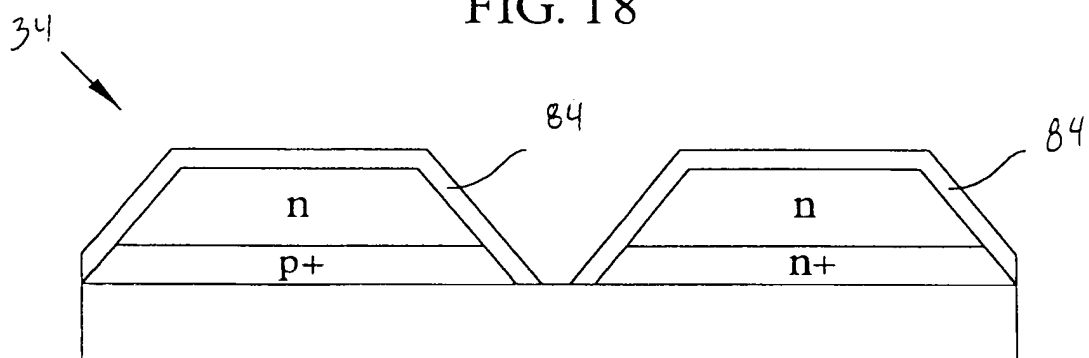


FIG. 19

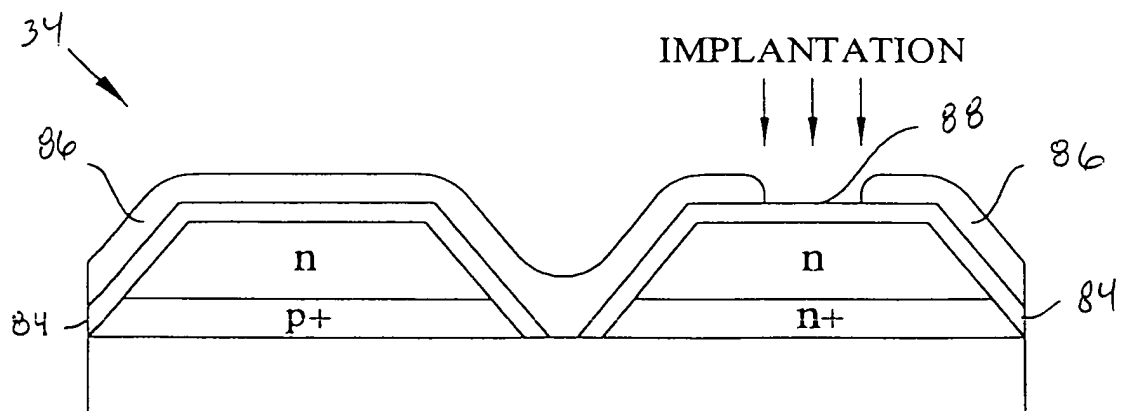


FIG. 20

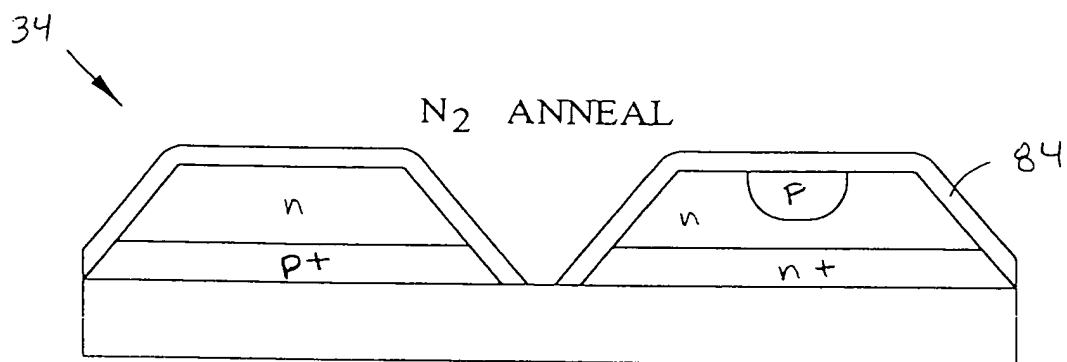


FIG. 21

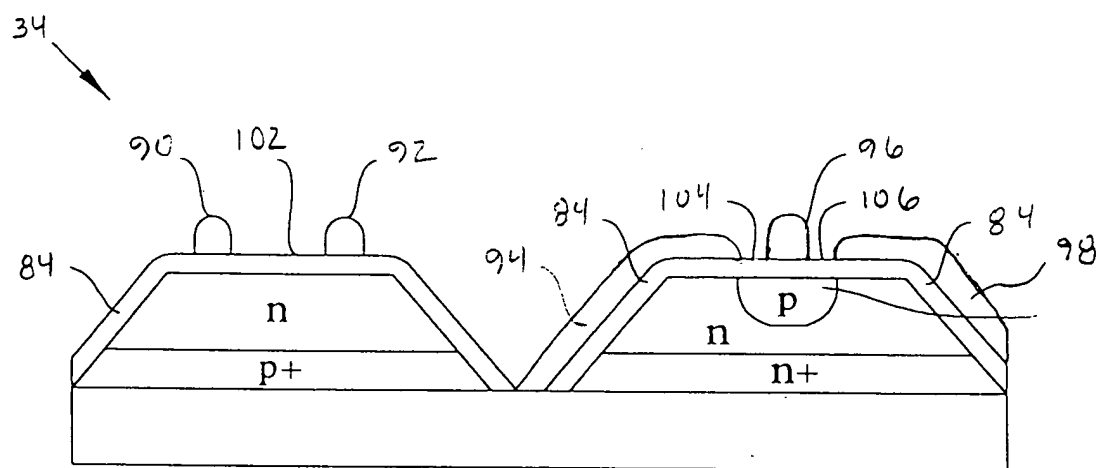


FIG. 22

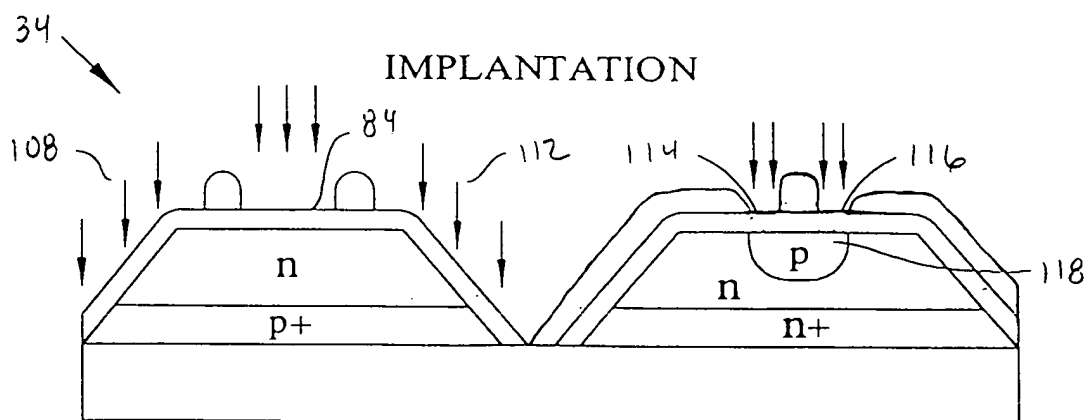


FIG. 23

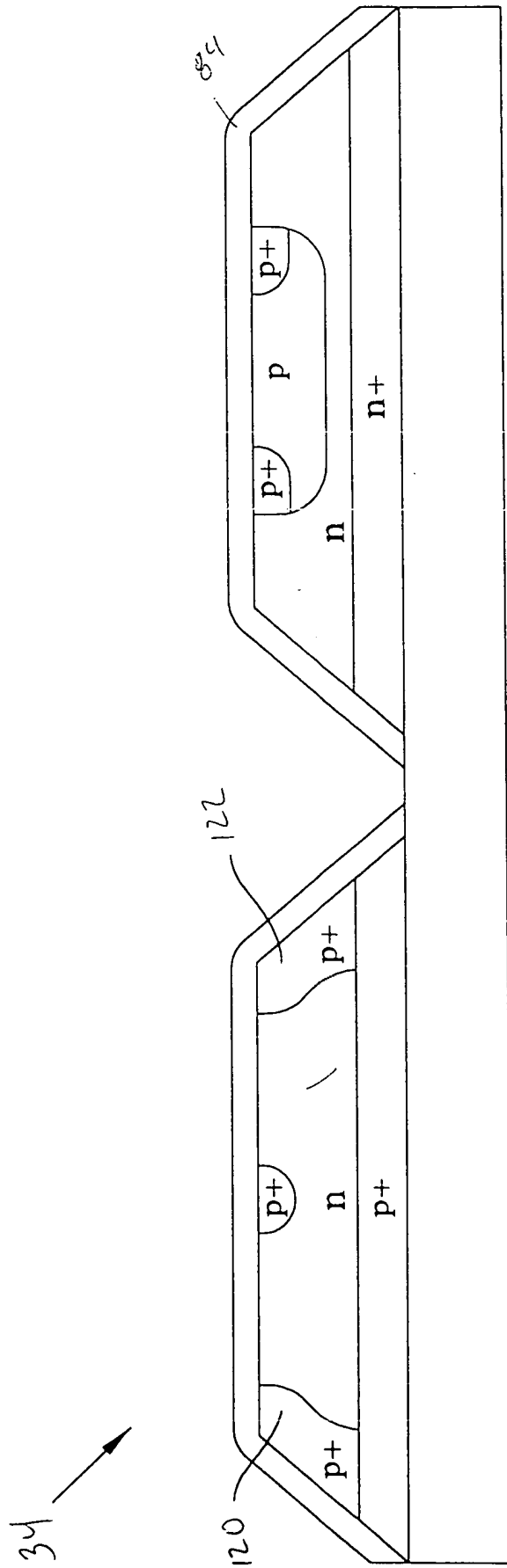


FIG. 24

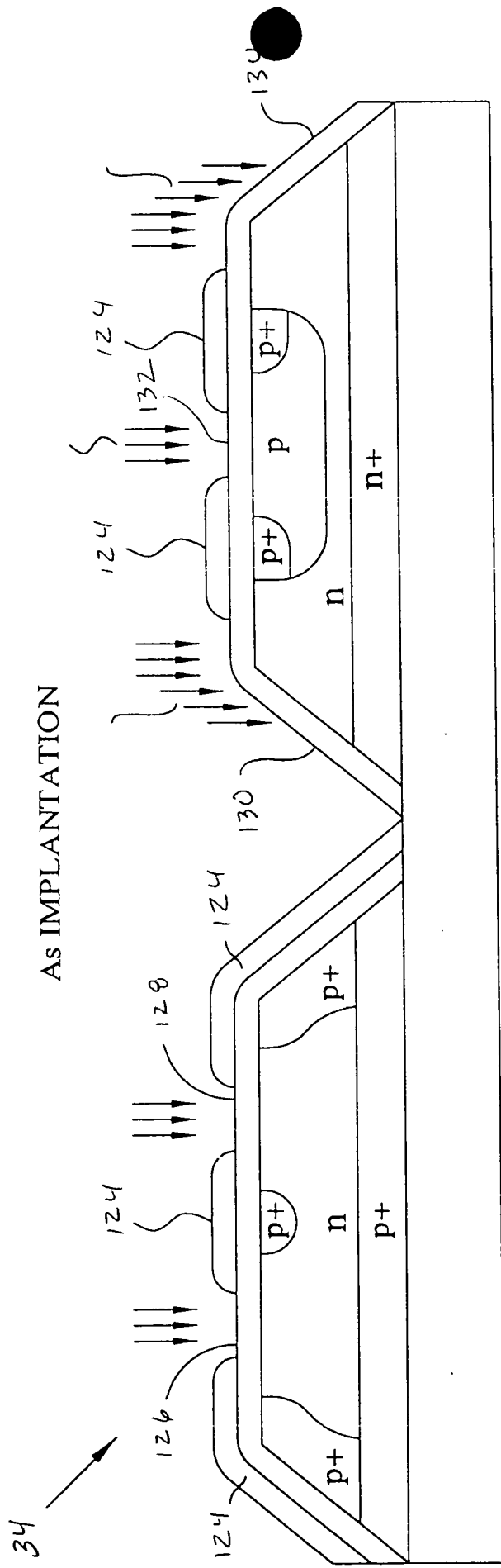


FIG. 25

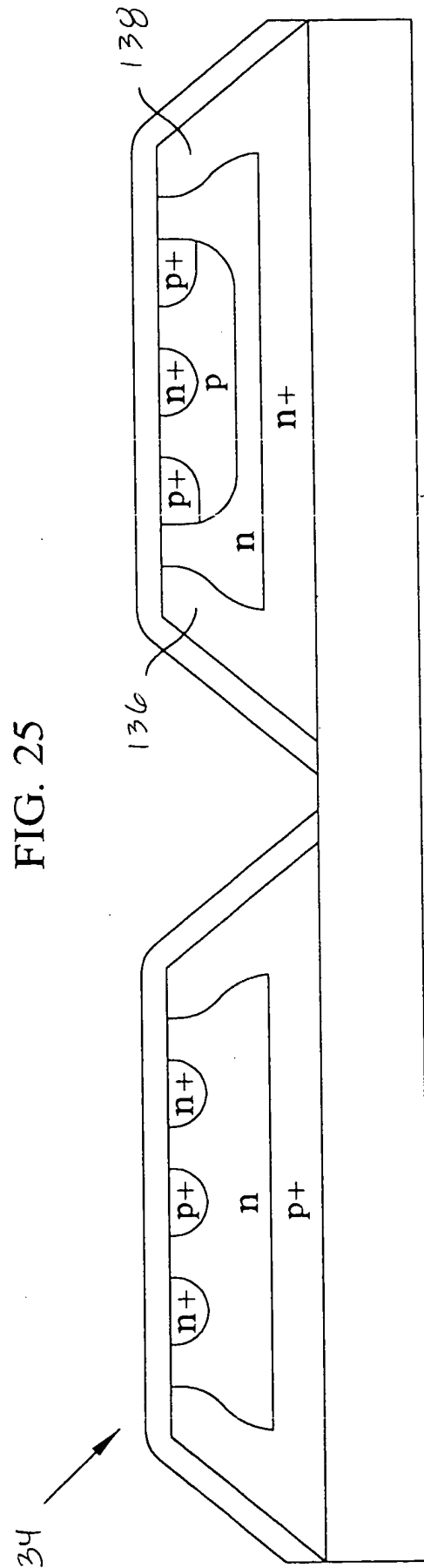


FIG. 26

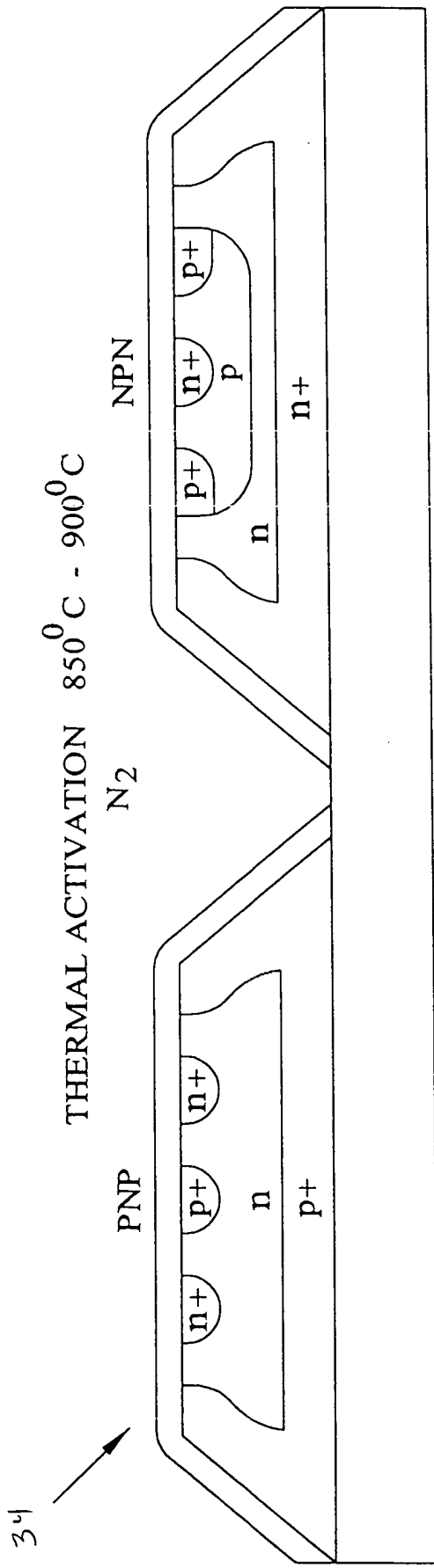


FIG. 27

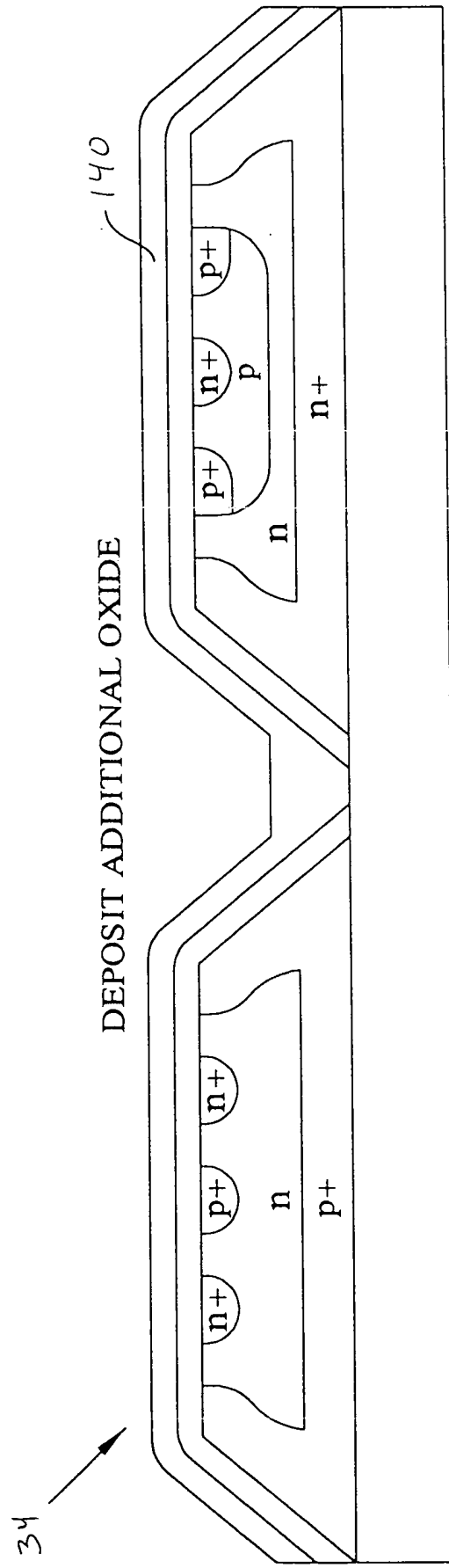


FIG. 28

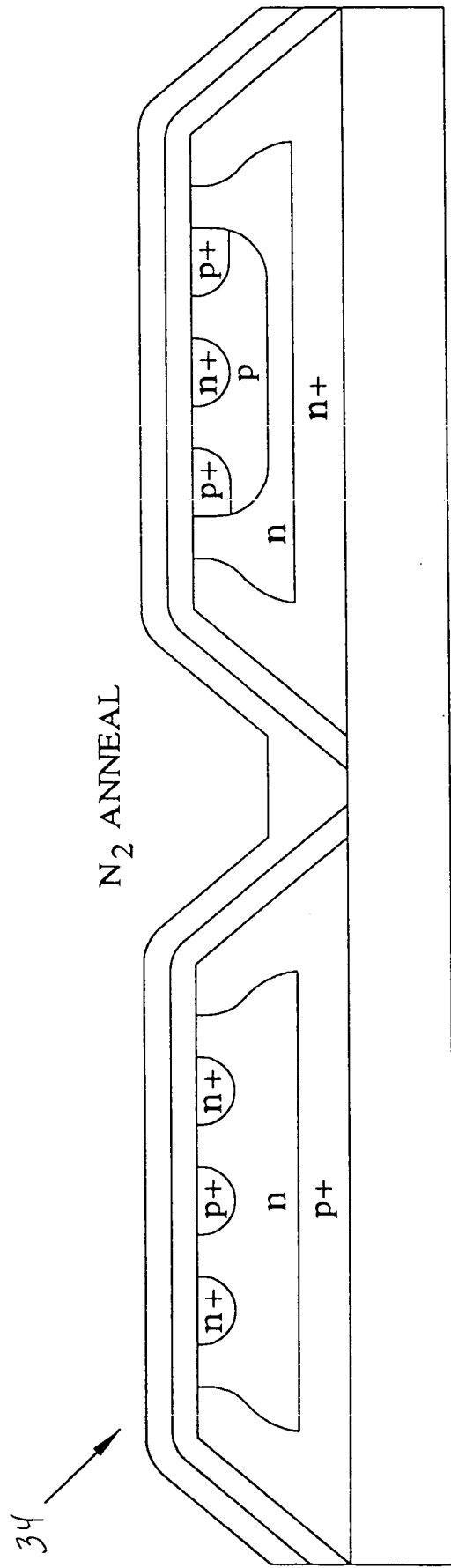


FIG. 29

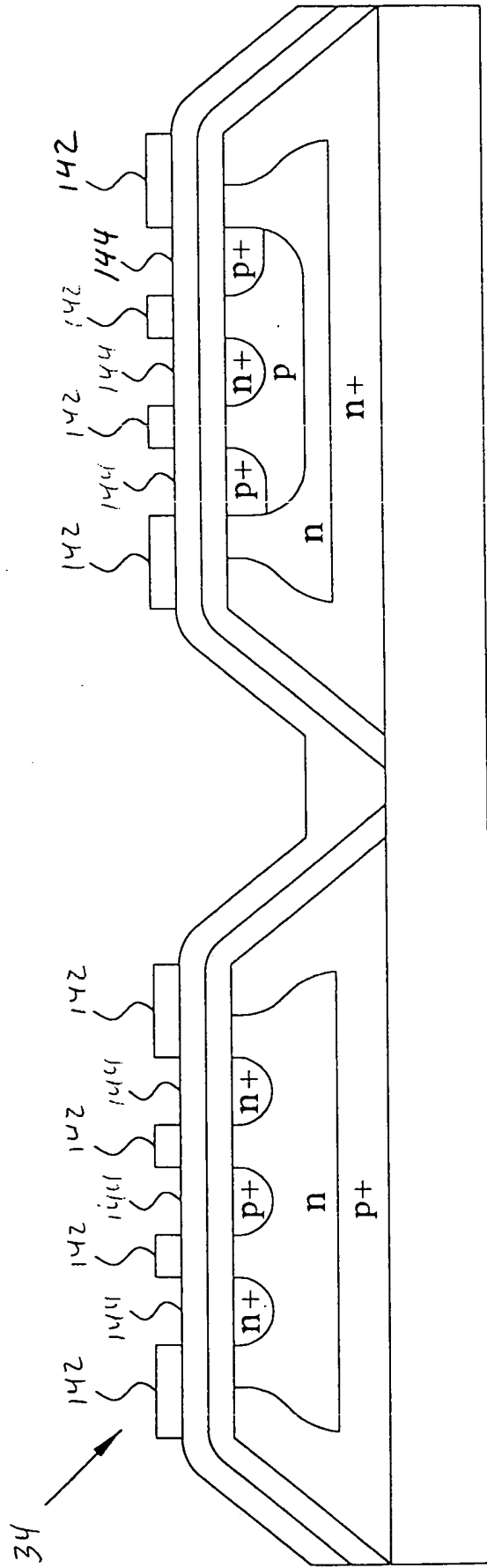


FIG. 30

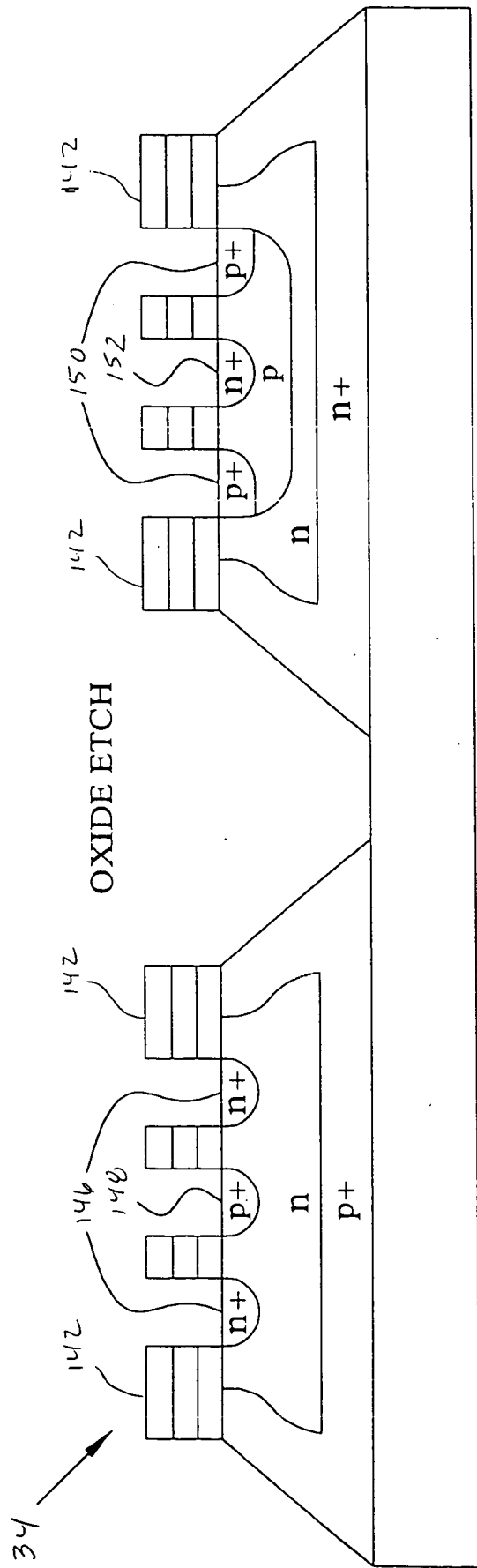


FIG. 31

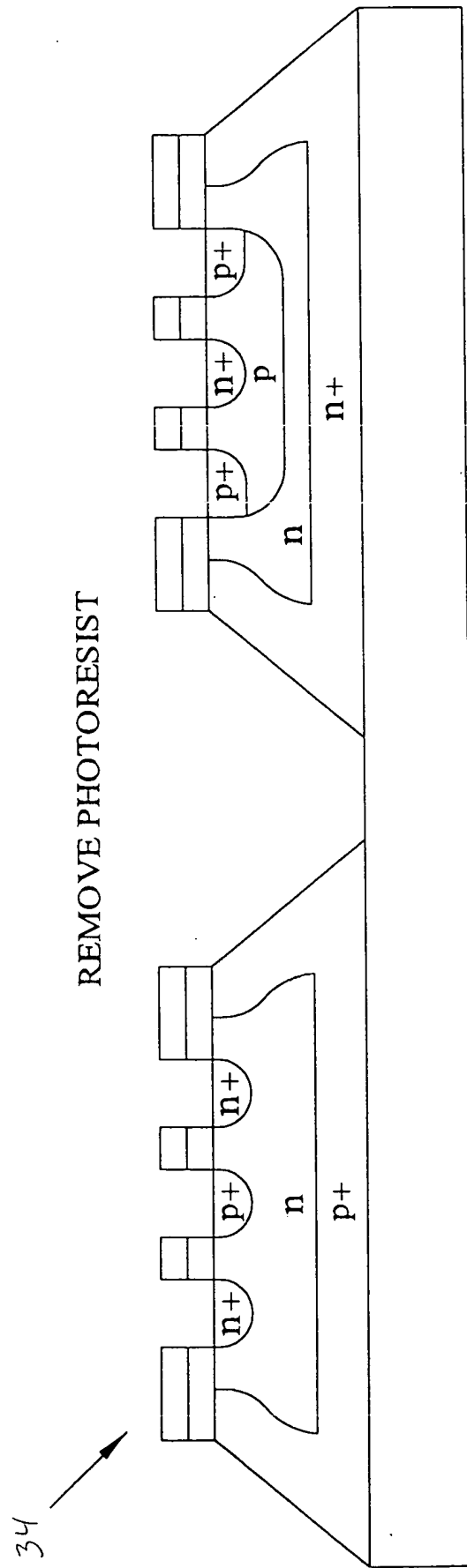


FIG. 32

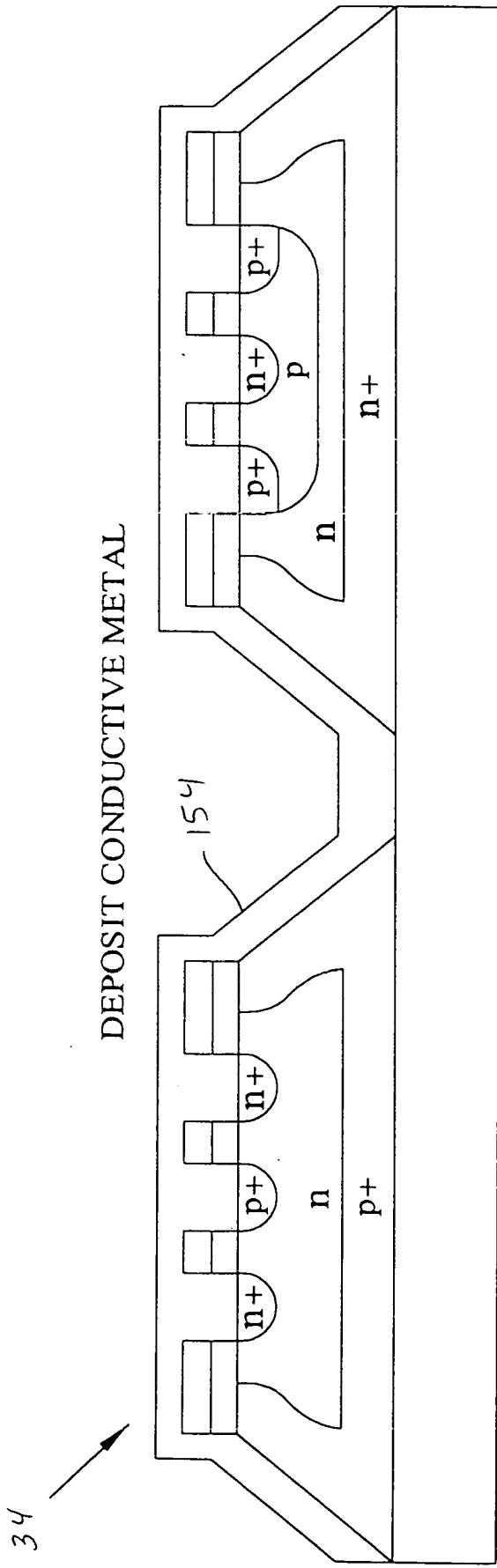


FIG. 33

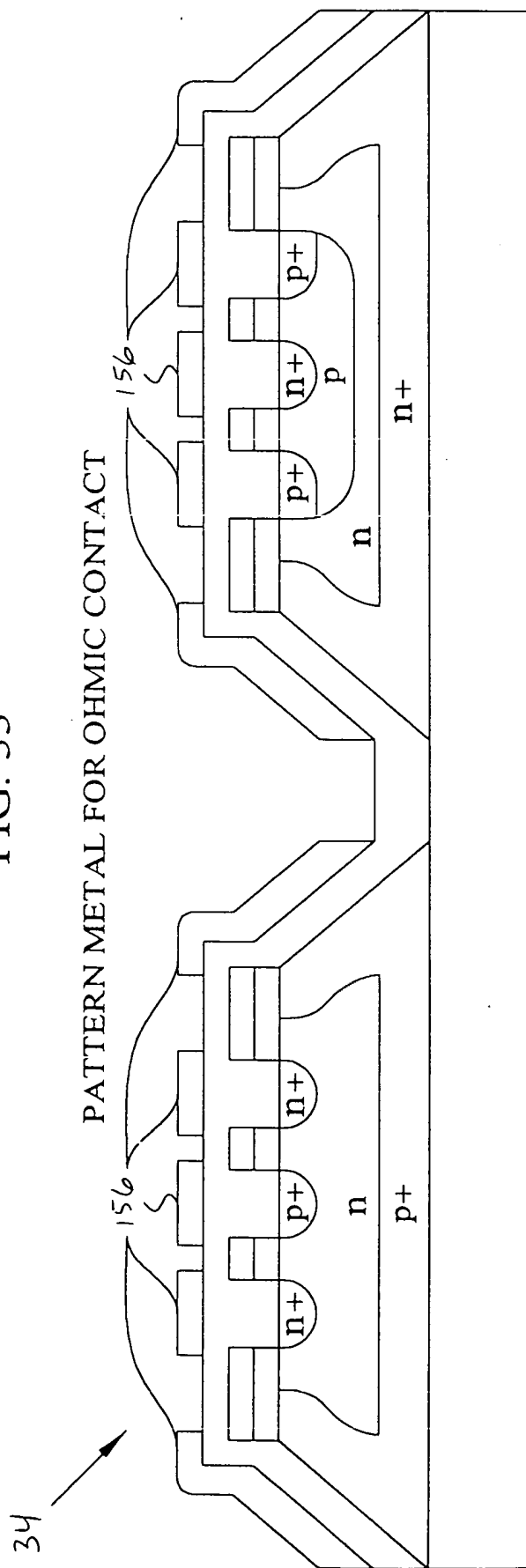


FIG. 34

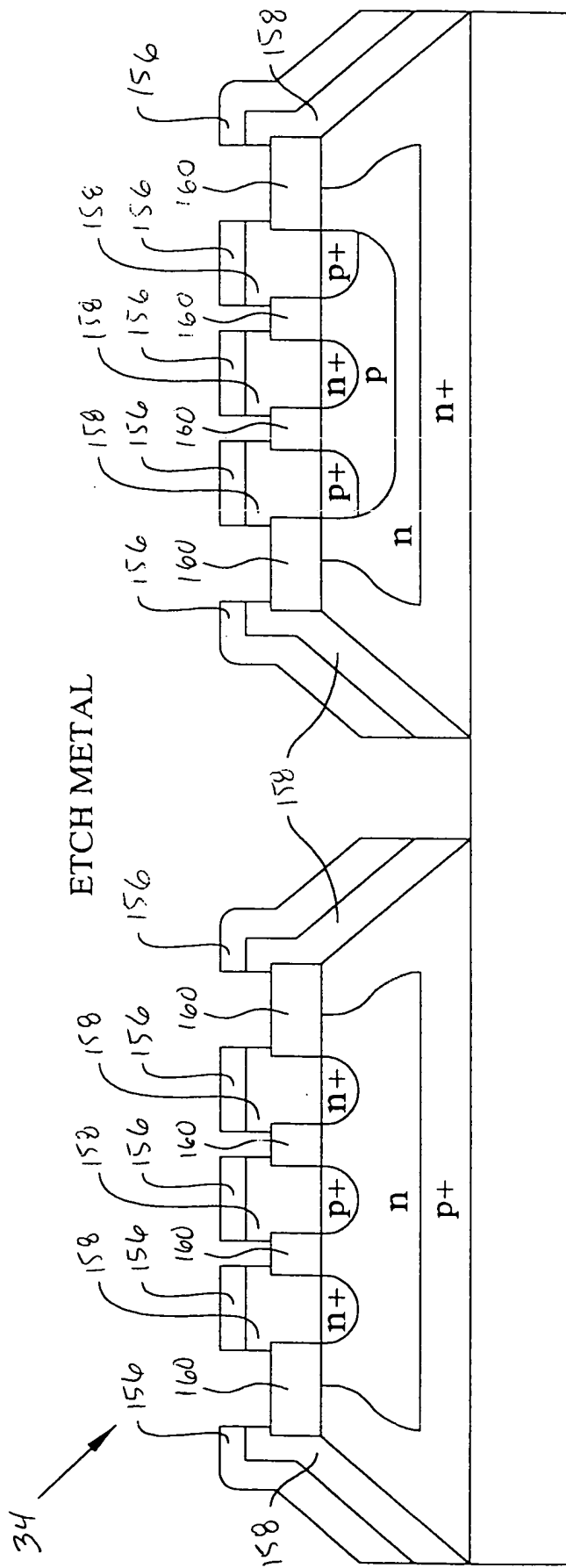


FIG. 35

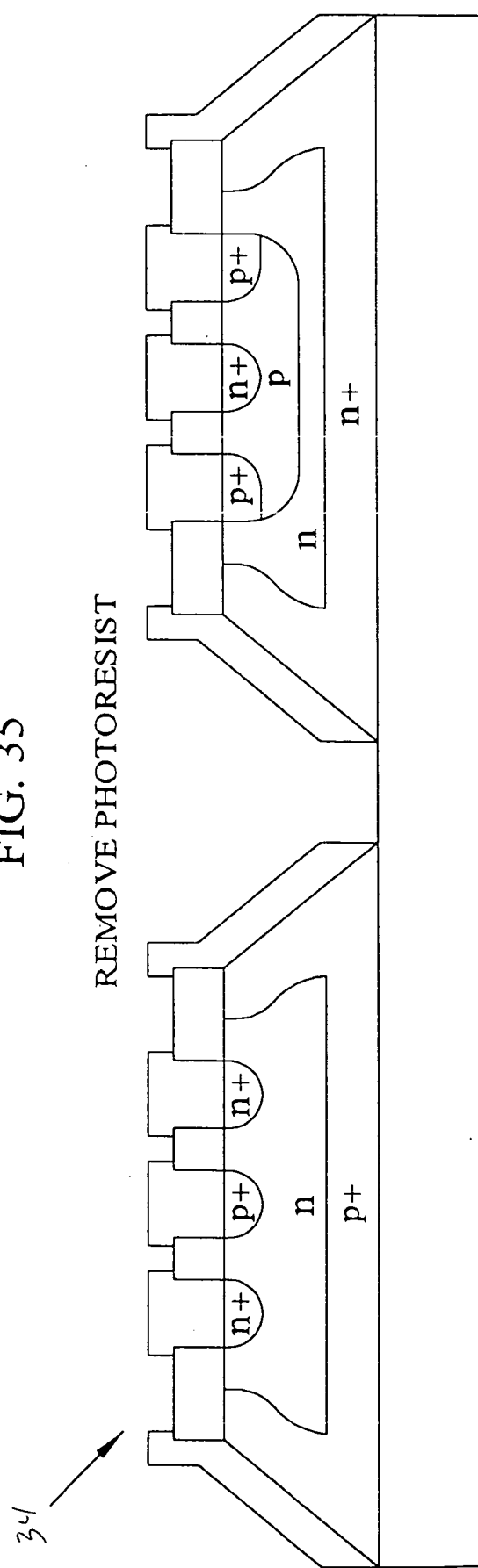


FIG. 36

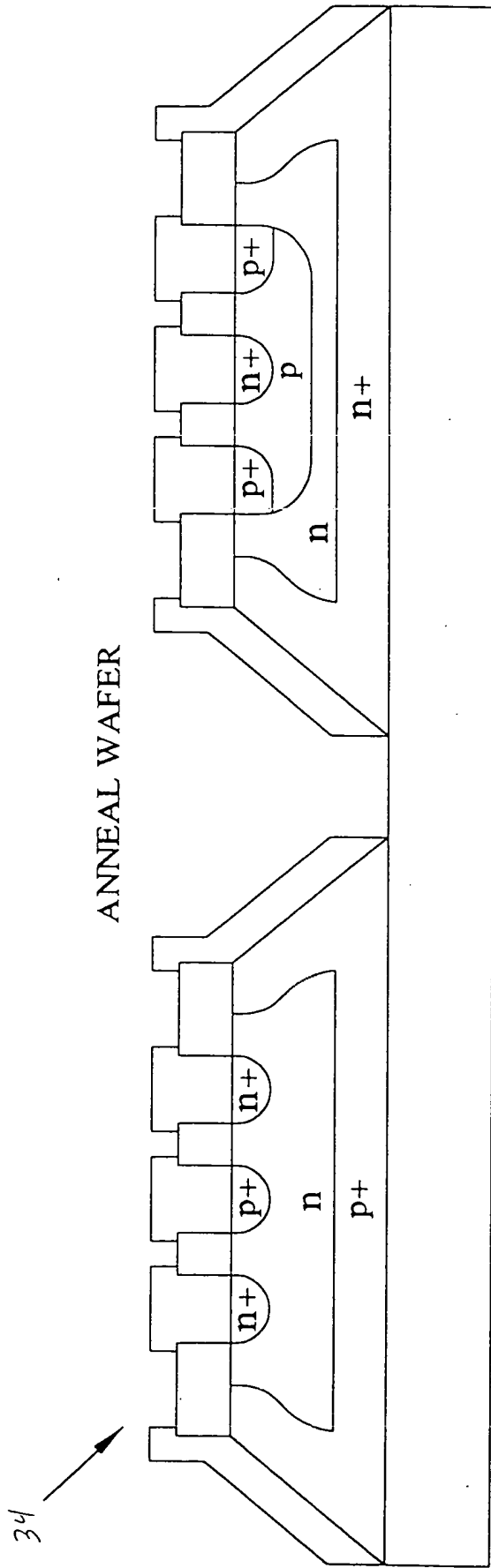


FIG. 37

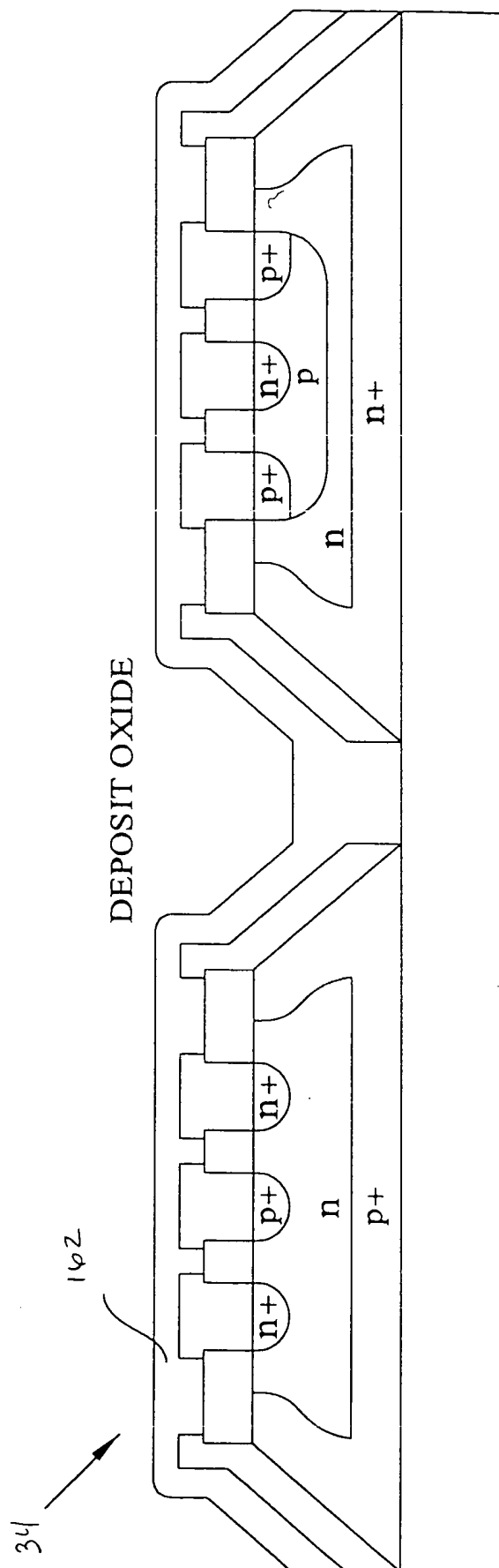


FIG. 38

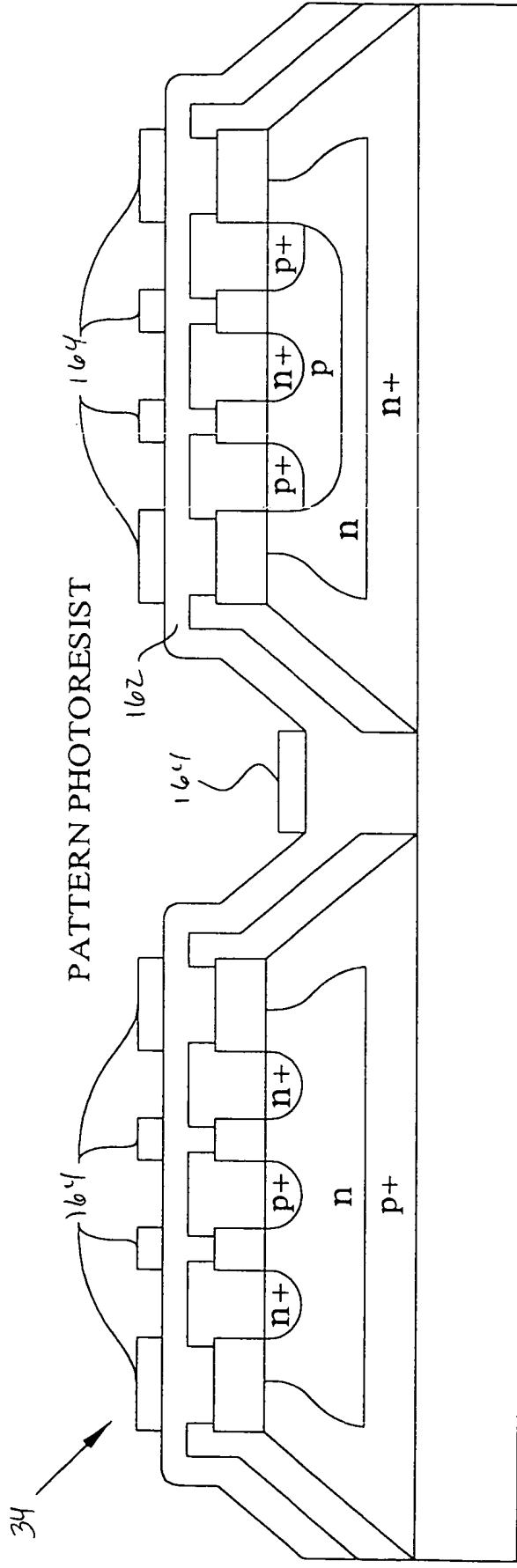


FIG. 39

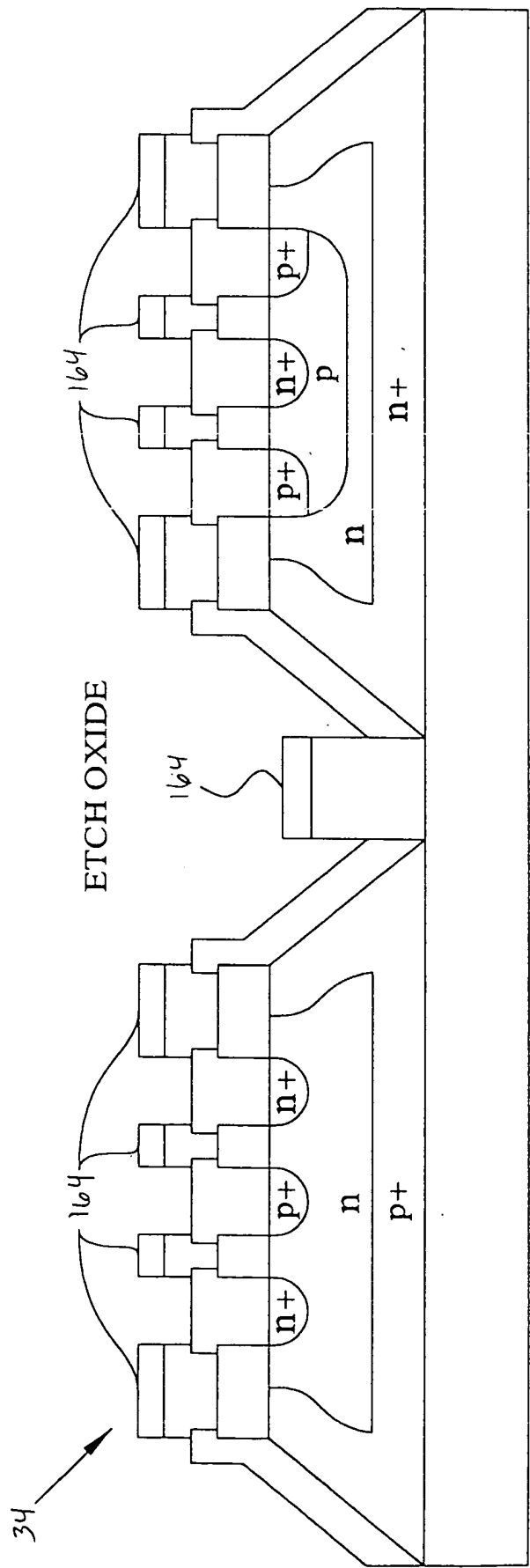


FIG. 40

34

REMOVE PHOTORESIST

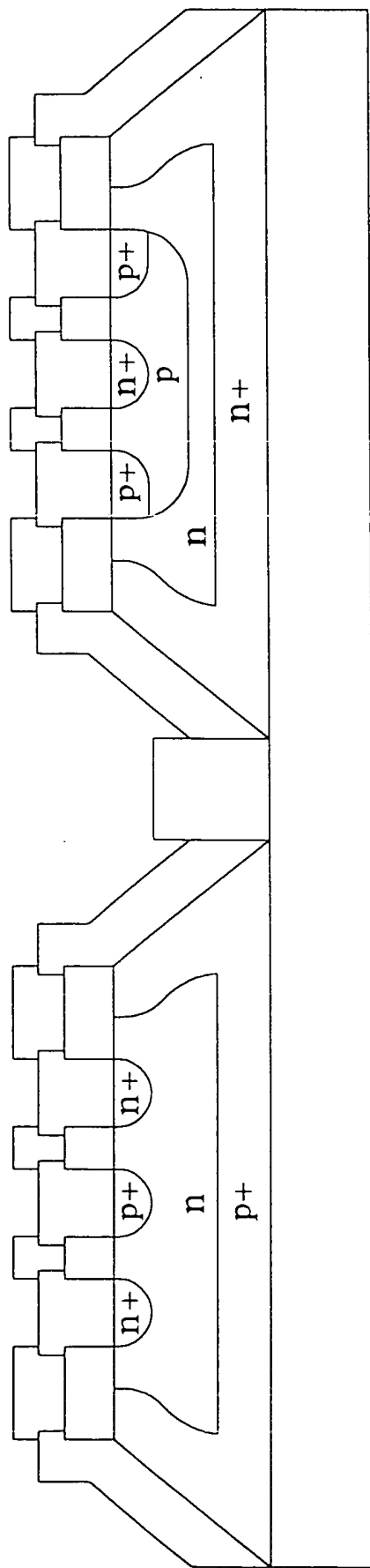
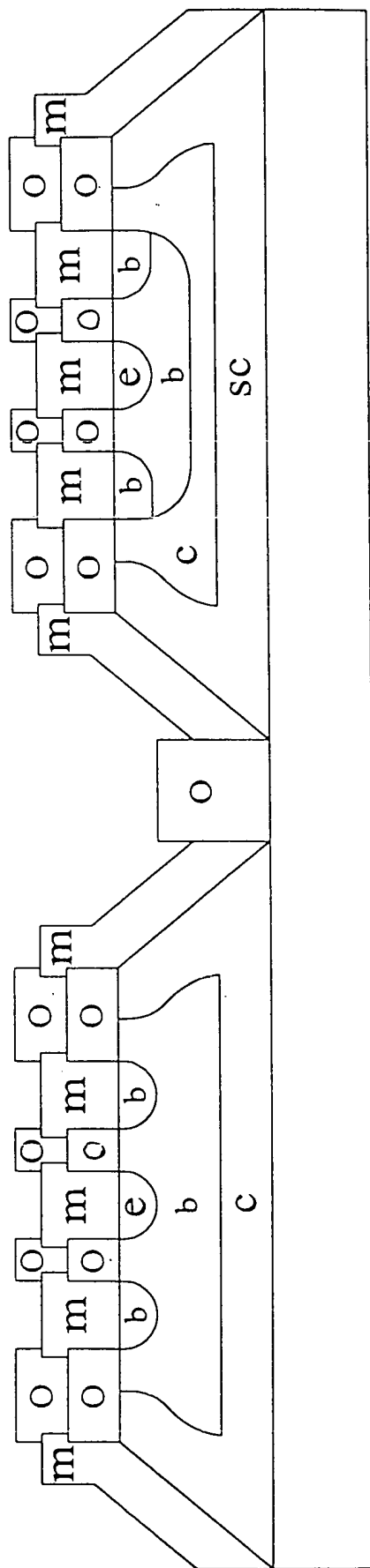


FIG. 41

10

PNP

NPN



KEY: m = metal o = oxide
e = emitter

FIG. 42